

Selections from *The Pig that wants to be Eaten*

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Being a bat

What is it like to be bat? Try imagining it. Perhaps you see yourself being very small, bat-shaped and hanging upside down inside a cave with hundreds of your friends. But that isn't even coming close. What you really seem to be imagining is you inhabiting the body of a bat, not being a bat. Try again.

If you're finding it hard, one reason is that, as a bat, you have no language, or if we are a little more generous, only a primitive language of squeaks and cries. It is not just that you have no public language to articulate your thoughts, you have no inner thoughts – at least not any that employ any linguistic concepts.

Another reason, perhaps the hardest part of all, is that bats find their way around by echolocation. The squeaks they emit work a little like radar, letting them know what objects are in the world by how the sounds rebound off objects and back to them. What is it like to experience the world in this way? It could conceivably be that the perceptions the bat has are just like our visual ones, but that would be very unlikely. A third reason, even more outlandish, is that the bat sees a kind of radar screen, like that in an aeroplane cockpit.

No, the most likely explanation is that to perceive the world through echolocation is to have a kind of sense experience totally different from that of a human being. Can you even begin to imagine that?

Source: 'What is it like to be a bat?' by Thomas Nagel, republished in Mortal Questions (Cambridge University Press, 1979)

The invitation to imagine the perceptual world of the bat was first made in a famous paper by the American philosopher Thomas Nagel called 'What is it like to be a bat?'. The difficulty – if not impossibility – of giving an answer is supposed to reflect an intractable problem in the philosophy of the mind.

The scientific study of the mind is really still, if not in its infancy, then certainly pre-pubescent. In many ways we now understand a great deal. In particular, there is no doubt that the mind depends upon a functioning brain and we have come a long way in 'mapping' the brain: identifying which regions are responsible for which functions of the mind.

But despite this, something called the mind-body problem still remains. That is to say, we know there is some kind of very intimate relation between the mind and the brain, but it still seems mysterious how something physical such as the brain can give rise to the subjective experiences of minds.

Nagel's bat helps to crystallize the problem. We could come to understand completely how the bat's brain works and how it perceives through echolocation, but this complete physical and neural explanation would still leave us with no idea of what it feels like to be a bat. Thus in an important sense we would be unable to enter the mind of the bat, even though we understood everything about how its brain worked. But how can this be, if minds depend on nothing more for their existence than functioning brains?

To put it in another way, minds are distinguished by the first-person perspective they have on the world. Every conscious creature perceives the world from the point of view of some 'I', whether it has the concept of self or not. But the physical world is characterised in purely third-person terms – everything in it is a 'he', 'she' or 'it'. That is why a description of a brain and how it works can be complete – because it includes everything that can be captured by a third-person point of view – yet leave out what seems to be most crucial to experience – the first-person point of view.

What does all this show? Is it that the mind will always elude a scientific explanation, because the points of view of consciousness and science are totally different? Or is it that we just haven't yet devised a framework for understanding the world scientifically that captures both first-and third-person points of view? Or is it that the mind simply isn't part of the physical world at all? The first possibility seems prematurely pessimistic; the second

leaves us hoping for a way forward we cannot even begin to comprehend; and the third seems to fly in the face of all we know about the close connection of mind and brain. Finding a way forward seems to be as difficult as thinking your way into the mind of a bat.

Zombies

Lucia lived in a town where the lights were on, but nobody was ever home. She lived among zombies.

This was not as scary as it might sound. These zombies were not the flesh-eating ghouls of horror films. They looked and behaved just like you and I. They even had exactly the same physiology as you and I. But there was one key difference: they had no minds. If you pricked them they would say 'ouch' and wince, but they felt no pain. If you 'upset' them they would cry or get angry, but there would be no inner turmoil. If you played them soothing music they would appear to enjoy it, but in their minds they would hear nothing. On the outside, they were ordinary humans, but on the inside, nothing was going on.

This made them easy to get along with. It was easy to forget that they didn't have inner lives as she did, since they spoke and behaved just like ordinary people and that included references to how they felt or what they thought. Visitors to the town would also fail to notice anything strange. Even when Lucia let them in on the secret, they refused to believe her.

'How do you know that they have no minds?' they would ask. 'How do you know that other people do?' would be Lucia's reply. That usually shut them up.

'How do you know?' is often a very good question. It is also, alas, one it is very hard to answer conclusively. We rarely, perhaps never, know beyond any doubt whatsoever. The best we can hope for is to have good reasons for what we believe. Better reasons, at least, than those for believing the contrary. That is why we don't feel we need to worry about the possibility that we are living among zombies. Even if it is possible that we are, as long as we have more reasons to believe that we aren't, we can safely avoid fretting over improbable possibilities.

The reasons for thinking other people aren't zombies are principally ones of economy. If they walk like us, talk like us and have brains and bodies like us, then the chances are they are like us in all significant respects, including how things feel to them from the inside. It would be very odd if the nervous system which gives me consciousness didn't do the same

for others.

This, however, is precisely the point at which the zombie possibility becomes interesting. For why should we think that physical similarities are indicative of mental ones? The problem of consciousness is precisely that it seems inexplicable that purely physical entities such as brains should give rise to subjective experiences. Why should a C-fibre firing in the brain feel like anything at all? What has that brain event got to do with the sensation of pain?

If these questions seem serious and without satisfactory answers, then it would follow from them that there is nothing logically contradictory in imagining brain events such as C-fibres firing without any concomitant sensation. In other words, the idea of zombies – people just like us in every physical respect, but who have no inner lives at all – is perfectly coherent. And so the possibility that other people are such zombies, however improbable, is a real one.

As in horror films, killing off the zombies is no easy task. In order to discount the possibility of their existence, you need to show why it is that a creature that has the same physiology as us must also have the same basic psychology. That means, for example, showing why C-fibre firing must feel like pain, rather than seeing the colour yellow, or nothing at all. It's a challenge that so far no one has been able to meet to the general satisfaction of philosophers. Until someone does, we cannot be sure that zombies do not walk the Earth.

The Chinese Room

The booth of the clairvoyant Jun was one of the most popular in Beijing. What made Jun stand out was not the accuracy of her observations, but the fact that she was deaf and mute. She would insist on sitting behind a screen and communicating by scribbled notes, passed through a curtain.

Jun was attracting the customers of a rival, Shing, who became convinced that Jun's deafness and muteness were affectations, designed to make her stand out from the crowd. So one day, he paid her a visit, in order to expose her.

After a few routine questions, Shing started to challenge Jun's inability to talk. Jun showed no signs of being disturbed by this. Her replies came at the same speed, the handwriting remained the same. In the end, a frustrated Shing tore the curtain down and pushed the barrier aside. And there he saw, not Jun, but a man he would later find out was called John, sitting in front of a computer, typing in the last message he had passed through. Shing screamed at the man to explain himself.

'Don't hassle me, dude,' replied John. 'I don't understand a word you're saying. No speak Chinese, comprende?'

Source: Chapter 2 of Minds, Brains and Science by John Searle (British Broadcasting Corporation, 1984)

Visitors to Jun/John's clairvoyant booth may or may not be convinced that the person inside can see the future, is really deaf and mute, or is even a woman, but everyone would surely be convinced that whoever was in there understood Chinese. Chinese messages are passed in and meaningful answers are passed back. What clearer sign could there be that the writer of the messages understood the language they were written in?

Such thoughts lay behind the emergence of a theory of mind known as functionalism in the 1950s. To have a mind was not, on this view, a matter of having a certain kind of biological organ, such as a brain, but to be able to perform the functions of minds, such as understanding, judging and communicating.

The plausibility of this account is severely diminished, however, by the story of John and

Jun. Here, instead of consciousness or mind in general, one particular function of mind is under scrutiny: understanding a language. Jun's clairvoyant booth functions as though there were someone in it who understands Chinese.

Therefore, according to the functionalist, we should say that understanding of Chinese is going on. But, as Shing discovered, in fact there is no understanding of Chinese at all. The conclusion then seems to be that functionalism is wrong: it is not enough to perform the functions of a mind to have a mind.

It might be objected that, although John doesn't understand Chinese, his computer must do. However, imagine that instead of a computer, John works with a complex instruction manual, of which he is now a quick user due to his long experience. This manual simply tells him which replies to write out in response to the comments that come in. The result from the point of view of the person behind the screen would be the same, yet obviously there is no understanding of Chinese going on in this case. And arguably, since the computer merely processes symbols according to rules, the computer, like John with his manual, does not understand anything either.

If it is no use zooming in on the computer to locate understanding, it seems even more futile to zoom out to the whole system of booth, John and computer, and say that as a whole it understands Chinese. This isn't quite as crazy as it sounds. After all, I understand English, but I'm not sure it makes sense to say that my neurons, tongue or ears understand English. But the booth, John and the computer do not form the same kind of closely integrated whole as a person, and so the idea that by putting the three together you get understanding seems unpersuasive.

That, however, leaves us with a problem. For if it is not enough to function like a mind to have a mind, what more is required, and how can we know whether computers – or other people – have minds?

Black, white and red all over

Mary knows everything there is to know about the colour red. As a scientist, it has been her life's work. If you want to know why we can't see infrared, why tomatoes are red or why red is the colour of passion, Mary is your woman.

All this would be unremarkable, if it weren't for the fact that Mary is an achromat: she has no colour vision at all. The world, for Mary, looks like a black and white movie.

Now, however, all that is to change. The cones on her retina are not themselves defective, it is simply that the signals are not processed by the brain. Advances in neurosurgery now mean that this can be fixed. Mary will soon see the world in colour for the first time.

So despite her wide knowledge, perhaps she doesn't know everything about the colour red after all. There is one thing left for her to find out: what red looks like.

Source: 'What Mary Didn't Know' by Frank Jackson, republished in *The Nature of Mind*, edited by David Rosenthal (Oxford University Press, 1991)

Most educated people don't have much time for the view that mind and body are two different kinds of stuff, which somehow coexist side by side. The idea that we have an immaterial soul that inhabits our animal bodies – a ghost in the machine – is outmoded, implausible and anti-scientific.

Simply rejecting one erroneous worldview, however, does not guarantee you will be left with a true one. If you kick out mind-body dualism, what is to replace it? The obvious candidate is physicalism: there is only one kind of stuff, physical stuff, and everything, including the human mind, is made of it. For sure, this 'stuff' may turn out to be energy rather than little sub-atomic billiard balls, but whatever chairs are made of, everything else is made of too.

And so it may be. But physicalist zeal can go too far. Even if there is just one class of 'stuff', that doesn't necessarily mean the word can be understood in entirely physical terms.

This is what the story of Mary illustrates. As a scientist, Mary knows everything about red in physical terms. Yet there is something she doesn't know: what it looks like. No scientific account of the world can give her this knowledge. Science is objective, experimental, quantitative; sense experience – indeed all mental experience – is subjective, experiential and qualitative. What this seems to show is that no physical description of the world, however complete, can capture what goes on in our minds. As philosophers put it, the mental is irreducible to the physical.

This presents a challenge to physicalists. How can it be true both that there is nothing in the world apart from physical stuff, and yet the same time, that there are mental events that cannot be explained in physical terms? Is this a case of jumping out of the dualist frying pan into the physicalist fire?

Let us imagine that Mary is herself a physicalist. What might she say? Perhaps she would start by pointing out that there is a difference between appearances and reality: there is a way things are and a way they appear to be. Science concerns itself with the former, not the latter, because knowledge is always of how things are, not as they merely seem to be. Mary knows everything about what red is, she just doesn't 'know' how it appears to most people. She does know how it appears to her, of course, which is like a particular shade of grey.

So when Mary sees colour for the first time, the world will appear a new way for her. But is it true to say she will know anything new about it? It may seem natural to say she now 'knows' what red looks like. But sometimes our ordinary ways of talking can blind us to the subtler distinctions a philosopher should take care to make.

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And ninety-nine other thought
experiments

Julian Baggini

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